**SUPPLEMENTARY MATERIALS**

List of supplementary materials

Supplementary file 1 – Alignment of COI sequences of specimens of the *Megascops atricapilla / watsonii* complex analyzed in this study.

Supplementary file 2 – Alignment of cytb sequences of specimens of the *Megascops atricapilla / watsonii* complex analyzed in this study.

Supplementary file 3 – Alignment of ND2 sequences of specimens of the *Megascops atricapilla / watsonii* complex analyzed in this study.

### Figure S1. Biogeographical areas considered in this study used in ancestral areas reconstructions: (AN) Andes; (GS) Guianan Shield; (BS) Brazilian Shield; (CP) Pernambuco Center; (AF) Atlantic Forest (south of São Francisco River); (NB) Northern Amazonian Sedimentary Basin; and (SB) Southern Amazonian Sedimentary Basin. Modified from Conn and Mirabello (2007).

Figure S2. Haplotype networks for the six molecular markers used in the study. Letters .a - .f in the legend refer respectively to clades A-F.

Table S1. GenBank accession numbers associated with gene sequences of specimens used in this study. See Appendix for detailed information on each specimen.



Figure S1.



Figure S2.

Table S1. GenBank accession numbers associated with gene sequences of specimens used in this study. See Appendix for detailed information on *Megascops atricapilla-M. watsonii* specimens. Detailed information on specimens belonging to the outgroup can be found in Dantas *et al.* (2016).

| **Voucher / tissue # 1** | **Taxon** | **GenBank accession numbers** |
| --- | --- | --- |
| **COI** | **Cytb** | **ND2** | **BF5** | **CHD** | **MUSK** |
|
| ANSP 188291 | *Megascops watsonii* | MW477385 | MW560400 | MW588819 | MW479482 | - | MW475301 |
| ANSP 21937 | *Megascops watsonii* | MW477386 | MW560401 | MW588820 | - | MW588858 | MW475302 |
| ANSP 2445 | *Megascops watsonii* | - | - | - | - | - | - |
| LSUMZ B20185 | *Megascops watsonii* | MW477388 | MW560403 | MW588822 | - | MW588860 | MW475304  |
| MPEG 66635 | *Megascops watsonii* | KT799321 | KT799277 | KT799372 | KT799432; KT799433 | - | KT799523 |
| NMNH 11476 | *Megascops watsonii* | MW477429 | MW560443 | MW588855 | - | MW588894 | MW475333 |
| FMNH 456485 | *Megascops usta* | KT799320 | KT799276 | KT799371 | KT799431 | KT799470 | KT799521; KT799522 |
| KUNHM 944 | *Megascops usta* | MW477387 | MW560402 | MW588821 | - | MW588859 | MW475303 |
| LSUMZ B2829 | *Megascops usta* | MW477389 | MW560404 | MW588823 | MW479483 | - | MW475305 |
| LSUMZ B2912 | *Megascops usta* | MW477390 | MW560405 | MW588824 | MW479484 | MW588861 | MW475306 |
| LSUMZ B46287 | *Megascops usta* | MW477391 | MW560406 | MW588825 | MW479485 | MW588862 | MW475307 |
| LSUMZ B947 | *Megascops usta* | MW477392 | MW560407 | MW588826 | - | MW588863 | MW475308 |
| LSUMZ B9665 | *Megascops usta* | - | MW560408 | MW588827 | MW479486 | - | - |
| MPEG 57930 | *Megascops usta* | MW477393 | - | MW588828 | - | MW588864 | MW475309 |
| MPEG 62429 | *Megascops usta* | MW477394 | MW560409 | MW588829 | MW479487 | MW588865 | MW475310 |
| MPEG 67246 | *Megascops usta* | MW477395 | MW560410 | - | MW479488 | MW588866 | MW475311 |
| MPEG 69086 | *Megascops usta* | MW477396 | MW560411 | MW588830 | - | MW588867 | MW475312 |
| MPEG 70205 | *Megascops usta* | MW477397 | MW560412 | MW588831 | MW479489 | MW588868 | MW475313 |
| MPEG 70206  | *Megascops usta* | MW477398 | MW560413 | MW588832 | - | MW588869 | MW475314 |
| MPEG 70660 | *Megascops usta* | KT799323 | KT799279 | KT799374 | KT799435 | KT799472; KT799473 | KT799526; KT799527 |
| MPEG 70663 | *Megascops usta* | MW477405 | MW560418 | MW588838 | MW479496; MW479497 | MW588876 | MW475319 |
| MPEG 70987 | *Megascops usta* | MW477409 | MW560422 | MW588842 | - | MW588880 | MW475321 |
| MPEG 70997 | *Megascops usta* | MW477410 | MW560423 | MW588843 | MW479500 | MW588881 | MW475322 |
| MPEG 71378 | *Megascops usta* | MW477413 | MW560426 | MW588845 | - | MW588884 | MW475325 |
| MPEG 72556 | *Megascops usta* | MW477414 | MW560427 | MW588846 | - | MW588885 | - |
| MPEG 72557 | *Megascops usta* | MW477415 | MW560428 | MW588847 | - | - | - |
| MPEG 72619 | *Megascops usta* | MW477416 | MW560429 | - | - | MW588886 | - |
| MPEG 72973 | *Megascops usta* | MW477417 | MW560430 | MW588848 | - | MW588887 | - |
| MPEG 74006 | *Megascops usta* | MW477418 | MW560431 | MW588849 | MW479503 | - | MW475326 |
| MPEG 74094 | *Megascops usta* | MW477419 | MW560432 | - | MW479504 | - | MW475327 |
| MPEG 74096 | *Megascops usta* | MW477420 | MW560433 | - | MW479505 | - | MW475328 |
| MPEG 77180 | *Megascops usta* | - | MW560436 | MW588852 | MW479507 | MW588890 | - |
| MPEG 77825 | *Megascops usta* | MW477423 | MW560437 | - | - | MW588891 | - |
| MPEG 81521 | *Megascops usta* | MW477424 | MW560438 | MW588853 | MW479479 | - | - |
| MZUSP 88058 | *Megascops usta* | MW477426 | MW560440 | MW588854 | MW479509 | MW588892 | MW475330 |
| MZUSP JF297 | *Megascops usta* | MW477427 | MW560441 | - | MW479480 | MW588893 | MW475331 |
| MZUSP JF754 | *Megascops usta* | MW477428 | MW560442 | - | MW479481 | - | MW475332 |
| MPEG 70627 | *Megascops stangiae* | MW477403 | MW560416 | MW588836 | MW479494 | MW588874 | MW475317 |
| MPEG 70632 | *Megascops stangiae* | MW477404 | MW560417 | MW588837 | MW479495 | MW588875 | MW475318 |
| MPEG 70678 | *Megascops stangiae* | MW477406 | MW560419 | MW588839 | MW479498 | MW588877 | MW475320 |
| MPEG 70845  | *Megascops stangiae* | MW477407 | MW560420 | MW588840 | MW479499 | MW588878 | - |
| MPEG 70846 | *Megascops stangiae* | MW477408 | MW560421 | MW588841 | - | MW588879 | - |
| MPEG 71331 | *Megascops stangiae* | MW477411 | MW560424 | - | MW479501 | MW588882 | MW475323 |
| MPEG 71332 | *Megascops stangiae* | MW477412 | MW560425 | MW588844 | MW479502 | MW588883 | MW475324 |
| MZUSP 83559 | *Megascops stangiae* | MW477425 | MW560439 | - | MW479508 | - | MW475329 |
| NMNH 6991 | *Megascops stangiae* | MW477430 | MW560444 | MW588856 | - | - | - |
| NMNH 7020 | *Megascops stangiae* | MW477431 | MW560445 | MW588857 | MW479510 | - | - |
| MPEG 70268 | *Megascops ater* | MW477399 | MW560414 | MW588833 | MW479490; MW479491 | MW588870 | MW475315 |
| MPEG 70433 | *Megascops ater* | MW477400 | MW560415 | MW588834 | MW479492; MW479493 | MW588871 | MW475316 |
| MPEG 70434 | *Megascops ater* | KT799322 | KT799278 | KT799373 | KT799434 | KT799471 | KT799524; KT799525 |
| MPEG 76937 | *Megascops ater* | MW477421 | MW560434 | MW588850 | - | MW588888 | - |
| MPEG 76957 | *Megascops ater* | MW477422 | MW560435 | MW588851 | - | MW588889 | - |
| MPEG 70437 | *Megascops alagoensis* | MW477401 | MW560398 | - | - | MW588872 | - |
| MPEG 70438 | *Megascops alagoensis* | MW477402 | MW560399 | MW588835 | - | MW588873 | - |
| KUNHM 157 | *Megascops atricapilla* | KT799284 | KT799239 | KT799335 | KT799381; KT799382 | KT799440 | KT799481 |
| MPEG 64808 | *Megascops atricapilla* | MW477384 | MW560397 | - | - | - | - |
| MZUSP BA226 | *Megascops atricapilla* | KT799285 | KT799240 | KT799336 | KT799383 | KT799441 | KT799482; KT799483 |
| KUNHM 2092 | *Megascops guatemalae*  | KT799296 | KT799251 | KT799348 | KT799399; KT799400 | KT799452 | KT799494; KT799495 |
| ANSP 16806 | *Megascops roboratus* | KT799315 | KT799271 | KT799366 | - | KT799467 | - |
| MPEG 72106 | *Megascops sanctaecatarinae* | KT799317 | KT799273 | KT799368 | KT799425; KT799426 | KT799468 | - |

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